

IN THE CLAIMSListing of Claims:

- 1 1. (original) A method for recovering a Basic Input Output System (BIOS) image in a
2 computer system, comprising the steps of:
- 3 executing recovery code stored in a nonvolatile memory in response to a recover
4 BIOS command;
- 5 rewriting a first BIOS image in said nonvolatile memory with a second BIOS
6 image stored in a protected portion of a nonvolatile storage unit in response to said
7 recovery code; and
- 8 updating said system using said rewritten second BIOS image in said nonvolatile
9 memory.
- 1 2. (original) The method of claim 1, wherein said first BIOS image is rewritten with
2 said second BIOS image if said first BIOS image is determined to be corrupted.
- 1 3. (original) The method of claim 1, wherein said recover BIOS command is generated
2 in response to a recover BIOS request received by said computer system over a
3 communication link.
- 1 4. (original) The method of claim 3, wherein said recover BIOS request is part of a
2 secure data packet received by said computer system via said communication link.
- 1 5. (original) The method of claim 4, wherein said secure data packet has data which
2 must first be authenticated by said recovery code before said first BIOS image is
3 rewritten with said second BIOS image.
- 1 6. (original) The method of claim 1, wherein said nonvolatile memory is an
2 electronically erasable programmable read only memory (EEPROM).

1 7. (original) The method of claim 1, wherein said communication link comprises a local
2 area network (LAN) and a wide area network (WAN).

1 8. (original) The method of claim 1, wherein said nonvolatile storage unit is an
2 integrated drive electronics (IDE) disc drive.

1 9. (original) The method of claim 1, wherein said second BIOS image was written onto
2 said protected partition of said nonvolatile storage unit at the time of manufacture.

1 10. (original) The method of claim 2, wherein said first BIOS image is determined to be
2 corrupted by comparing a signature of said first BIOS image to a signature received in
3 said secure data packet.

1 11. (original) The method of claim 4, wherein said secure data packet is a Wake on LAN
2 packet.

1 12. (original) The method of claim 1, wherein said second BIOS image is written onto
2 said protected partition of said nonvolatile storage unit under control of an operating
3 system executing an update BIOS image program on said system.

1 13. (original) An apparatus for recovering a BIOS image for a computer system
2 comprising:

3 a nonvolatile memory for storing recovery code and a first BIOS image;

4 a nonvolatile read/write storage system having a protectable storage partition, said
5 partition storing a second BIOS image;

6 an execution unit to execute said recovery code stored in said nonvolatile memory
7 in response to a recover BIOS command;

8 a write circuit for rewriting said first BIOS image in said nonvolatile memory
9 with said second BIOS image stored in said protected partition of said nonvolatile storage
10 unit in response to said recovery code; and

11 an update circuit for booting up said system using said second BIOS image
12 written in said nonvolatile memory.

1 14. (original) The apparatus of claim 13 further comprising a receiver circuit to receive
2 a recover BIOS request via a communication link.

1 15. (original) The apparatus of claim 13, wherein said first BIOS image is rewritten with
2 said second BIOS image if said first BIOS image is determined to be corrupted.

1 16. (original) The apparatus of claim 14, wherein said recover BIOS command is
2 generated in response to said recover BIOS request received by said receiver circuit over
3 said communication link.

1 17. (original) The apparatus of claim 16, wherein said recover BIOS request is part of a
2 secure data packet received via said communication link.

1 18. (original) The apparatus of claim 17, wherein said secure data packet has data which
2 must be first authenticated by said recovery code before said first BIOS image is
3 rewritten with said second BIOS image.

1 19. (original) The apparatus of claim 13, wherein said nonvolatile memory is an
2 electronically erasable programmable read only memory (EEPROM).

1 20. (original) The apparatus of claim 14, wherein said communication link comprises a
2 local area network (LAN) and a wide area network (WAN).

1 21. (original) The apparatus of claim 13, wherein said nonvolatile storage unit is an
2 integrated drive electronics (IDE) disc drive.

1 22. (original) The apparatus of claim 13, wherein said second BIOS image was written
2 onto said protected partition of said nonvolatile storage unit at the time of manufacture.

1 23. (original) The apparatus of claim 15, wherein said first BIOS image is determined to
2 be corrupted by comparing a signature of said first BIOS image to a signature received in
3 said secure data packet.

1 24. (original) The apparatus of claim 17, wherein said secure data packet is a Wake on
2 LAN packet.

1 25 (original) A data processing system comprising:

2 a central processing unit (CPU);

3 a random access memory (RAM);

4 a communications adapter coupled to a communication link;

5 an I/O adapter coupled to non volatile read/write storage system, said nonvolatile
6 read/write storage system (hard drive) having a protectable storage partition, said
7 partition storing a second BIOS image;

8 a nonvolatile electronically erasable programmable read only memory
9 (EEPROM); and

10 a bus system coupling said CPU to said EEPROM, said communications adapter,
11 said I/O adapter, and said RAM, wherein said CPU comprises:

12 circuitry for executing said recovery code stored in a nonvolatile memory in
13 response to a recover BIOS command;

14 circuitry for rewriting said first BIOS image stored in said nonvolatile memory
15 with said second BIOS image stored in said protected partition of said nonvolatile storage
16 unit in response to said recovery code; and

17 circuitry for booting up said system using said second BIOS image written in said
18 nonvolatile memory.

1 26. (original) The data processing system of claim 25 further comprising a receiver
2 circuit to receive a recover BIOS request via a communication link.

1 27. (original) The data processing system of claim 25, wherein said first BIOS image is
2 rewritten with said second BIOS image if said first BIOS image is determined to be
3 corrupted

1 28. (original) The data processing system of claim 26, wherein said recover BIOS
2 command is generated in response to said recover BIOS request received by said receiver
3 circuit over said communication link.

1 29. (original) The data processing system of claim 27, wherein said recover BIOS
2 request is part of a secure data packet received via said communication link.

1 30. (original) The data processing system of claim 29, wherein said secure data packet
2 has data which must be first authenticated by said recovery code before said first BIOS
3 image is rewritten with said second BIOS image.

1 31. (original) The data processing system of claim 25, wherein said nonvolatile memory
2 is an electronically erasable programmable read only memory (EEPROM).

1 32. (original) The data processing system of claim 25, wherein said communication link
2 comprises a local area network (LAN) and a wide area network (WAN).

1 33. (original) The data processing system of claim 25, wherein said nonvolatile storage
2 unit is an integrated drive electronics (IDE) disc drive.

1 34. (original) The data processing system of claim 25, wherein said second BIOS image
2 is written onto said protected partition of said nonvolatile storage unit at the time of
3 manufacture.

1 35. (original) The data processing system of claim 27, wherein said first BIOS image is
2 determined to be corrupted by comparing a signature of said first BIOS image to a
3 signature received in said secure data packet.

1 36. (original) The data processing system of claim 28, wherein said secure data packet is
2 a Wake on LAN packet.

1 37. (original) The data processing system of claim 25, wherein said second BIOS image
2 is written onto said protected partition of said nonvolatile storage unit under control of an
3 operating system executing an update BIOS image program on said system.

1 38. (original) A computer program product for recovering a BIOS image for a computer
2 system, said computer program product embodied in a machine readable medium,
3 including programming for a processor, said computer program comprising a program of
4 instructions for performing the program steps of:

5 executing recovery code stored in a nonvolatile memory in response to a recover
6 BIOS command;

7 rewriting a first BIOS image in said nonvolatile memory with a second BIOS
8 image stored in a protected portion of a nonvolatile storage unit in response to said
9 recovery code; and

10 updating said system using said rewritten second BIOS image in said nonvolatile
11 memory.

1 39. (original) The computer program product of claim 38, wherein said first BIOS
2 image is rewritten with said second BIOS image if said first BIOS image is determined to
3 be corrupted.

1 40. (original) The computer program product of claim 38, wherein said recover BIOS
2 command is generated in response to a recover BIOS request received by said computer
3 system over a communication link.

1 41. (original) The computer program product of claim 40, wherein said recover BIOS
2 request is part of a secure data packet received by said computer system via said
3 communication link.

1 42. (original) The computer program product of claim 41, wherein said secure data
2 packet has data which must first be authenticated by said recovery code before said first
3 BIOS image is rewritten with said second BIOS image.

1 43. (original) The computer program product of claim 38, wherein said nonvolatile
2 memory is an electronically erasable programmable read only memory (EEPROM).

1 44. (original) The computer program product of claim 38, wherein said communication
2 link comprises a local area network (LAN) and a wide area network (WAN).

1 45. (original) The computer program product of claim 38, wherein said nonvolatile
2 storage unit is an integrated drive electronics (IDE) disc drive.

1 46. (original) The computer program product of claim 38, wherein said second BIOS
2 image was written onto said protected partition of said nonvolatile storage unit at the
3 time of manufacture.

1 47. (original) The computer program product of claim 39, wherein said first BIOS
2 image is determined to be corrupted by comparing a signature of said first BIOS image to
3 a signature received in said secure data packet.

1 48. (original) The computer program product of claim 41, wherein said secure data
2 packet is a Wake on LAN packet.

3 49. (original) The computer program product of claim 38, wherein said second BIOS
4 image is written onto said protected partition of said nonvolatile storage unit under
5 control of an operating system executing an update BIOS image program on said system.